

| L Number | Hits | Search Text | DB | Time stamp |
|----------|--------|--|---------------------------------|------------------|
| 1 | 845 | dtmf adj2 decoder | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 14:52 |
| 2 | 845 | (dtmf adj2 decoder) and ad@<=20020124 | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 14:52 |
| 3 | 477546 | amplifier | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 14:52 |
| 4 | 109 | (dtmf adj2 decoder) same amplifier | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 14:53 |
| 6 | 591077 | cpu or processor or digital adj logic | USPAT; EPO; JPO | 2004/07/05 15:03 |
| 7 | 76 | ((dtmf adj2 decoder) same amplifier) and (cpu or processor or digital adj logic) | USPAT; EPO; JPO | 2004/07/05 15:04 |
| 8 | 165559 | analog adj3 digital adj2 converter or "a/d" or codec | USPAT; EPO; JPO | 2004/07/05 15:04 |
| 9 | 15 | ((dtmf adj2 decoder) same amplifier) and (cpu or processor or digital adj logic) and (analog adj3 digital adj2 converter or "a/d" or codec) | USPAT; EPO; JPO | 2004/07/05 15:04 |
| 10 | 1 | "6195421".PN. | USPAT | 2004/07/05 15:06 |
| - | 736 | 379/216.01,355.01-355.1.ccls. | USPAT; EPO; JPO | 2004/02/02 17:30 |
| - | 862 | 379/216.01,355.01-356.01.ccls. | USPAT; EPO; JPO | 2004/02/02 17:29 |
| - | 8961 | (abbreviat\$3 or speed) near3 (dial\$3 or number).ab,ti. | USPAT; EPO; JPO | 2004/02/02 18:59 |
| - | 74 | 379/216.01,355.01-356.01.ccls. and ((abbreviat\$3 or speed) near3 (dial\$3 or number).ab,ti.) | USPAT; EPO; JPO | 2004/02/02 17:31 |
| - | 2782 | automat\$3 near5 updat\$3 | USPAT; EPO; JPO | 2004/02/02 17:32 |
| - | 3 | (379/216.01,355.01-356.01.ccls. and ((abbreviat\$3 or speed) near3 (dial\$3 or number).ab,ti.)) and (automat\$3 near5 updat\$3) | USPAT; EPO; JPO | 2004/02/02 17:43 |
| - | 2579 | (time near5 call\$3) with count\$3 | USPAT; EPO; JPO | 2004/02/02 17:44 |
| - | 3006 | repeat\$3 near5 (call\$3 or number) with count\$3 | USPAT; EPO; JPO | 2004/02/02 17:44 |
| - | 5507 | ((time near5 call\$3) with count\$3) or (repeat\$3 near5 (call\$3 or number) with count\$3) | USPAT; EPO; JPO | 2004/02/02 17:44 |
| - | 29 | 379/216.01,355.01-356.01.ccls. and (((time near5 call\$3) with count\$3) or (repeat\$3 near5 (call\$3 or number) with count\$3)) | USPAT; EPO; JPO | 2004/02/02 17:50 |
| - | 1811 | automat\$3 near2 updat\$3 | USPAT; EPO; JPO | 2004/02/02 17:51 |
| - | 1 | (379/216.01,355.01-356.01.ccls. and (((time near5 call\$3) with count\$3) or (repeat\$3 near5 (call\$3 or number) with count\$3))) and (automat\$3 near2 updat\$3) | USPAT; EPO; JPO | 2004/02/02 18:18 |
| - | 87 | (programm\$3 or updat\$3) near2 speed near2 dial\$3 | USPAT; EPO; JPO | 2004/02/02 18:19 |
| - | 21 | ((time near5 call\$3) with count\$3) or (repeat\$3 near5 (call\$3 or number) with count\$3) and ((programm\$3 or updat\$3) near2 speed near2 dial\$3) | USPAT; EPO; JPO | 2004/02/02 18:19 |
| - | 2 | 379/216.01,355.01-356.01.ccls. and (((time near5 call\$3) with count\$3) or (repeat\$3 near5 (call\$3 or number) with count\$3)) and ((programm\$3 or updat\$3) near2 speed near2 dial\$3) | USPAT; EPO; JPO | 2004/02/02 18:19 |
| - | 9034 | ((abbreviat\$3 or speed) near3 (dial\$3 or number).ab,ti.) or ((programm\$3 or updat\$3) near2 speed near2 dial\$3) | USPAT; EPO; JPO | 2004/02/02 19:00 |
| - | 87 | ((programm\$3 or updat\$3) near2 speed near2 dial\$3) and (((abbreviat\$3 or speed) near3 (dial\$3 or number).ab,ti.) or ((programm\$3 or updat\$3) near2 speed near2 dial\$3)) | USPAT; EPO; JPO | 2004/02/02 19:00 |
| - | 6225 | outg\$5 near2 call\$3 | USPAT; EPO; JPO | 2004/02/02 19:01 |

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|---|--------|--|--------------------|------------------|
| - | 10 | "5734712" and predeterm\$5 | USPAT; EPO; JPO | 2004/06/25 14:02 |
| - | 1 | "6119090" and output\$3 | USPAT; EPO; JPO | 2004/06/25 13:23 |
| - | 1 | "6119090" and reference | USPAT; EPO; JPO | 2004/06/25 13:24 |
| - | 0 | "6119090" and exceed\$1 | USPAT; EPO; JPO | 2004/06/25 13:34 |
| - | 0 | "6119090" and final | USPAT; EPO; JPO | 2004/06/25 13:34 |
| - | 3 | "6119090" and relat\$3 | USPAT; EPO; JPO | 2004/06/25 13:39 |
| - | 3 | "6119090" and resistor | USPAT; EPO; JPO | 2004/06/25 13:41 |
| - | 3 | "6119090" and capacitor | USPAT; EPO; JPO | 2004/06/25 13:41 |
| - | 0 | "5734712" and compar\$3 near input | USPAT; EPO; JPO | 2004/06/25 14:03 |
| - | 3 | "5734712" and (compar\$3 near5 input) | USPAT; EPO; JPO | 2004/06/25 14:03 |
| - | 9 | "5734712" and (compar\$3) | USPAT; EPO; JPO | 2004/06/25 14:04 |
| - | 9 | "5734712" and (compar\$3) and predeterm\$5 | USPAT; EPO; JPO | 2004/06/25 14:07 |
| - | 0 | "5734712" and final\$1 | USPAT; EPO; JPO | 2004/06/25 14:08 |
| - | 6 | "5734712" and exceed\$1 | USPAT; EPO; JPO | 2004/06/25 14:09 |
| - | 1017 | dtmf with decoder | USPAT; EPO; JPO | 2004/07/05 16:20 |
| - | 696817 | amplifier or driver | USPAT; EPO; JPO | 2004/07/05 10:24 |
| - | 44927 | "adc" or analog adj digital adj converter | USPAT; EPO; JPO | 2004/07/05 10:24 |
| - | 591077 | cpu or processor or digital adj logic | USPAT; EPO; JPO | 2004/07/05 10:25 |
| - | 2466 | (amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic) | USPAT; EPO; JPO | 2004/07/05 10:00 |
| - | 1 | (dtmf with decoder) same ((amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) | USPAT; EPO; JPO | 2004/07/05 10:00 |
| - | 8784 | dtmf | USPAT; EPO; JPO | 2004/07/05 10:02 |
| - | 24 | ((amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) same dtmf | USPAT; EPO; JPO | 2004/07/05 10:04 |
| - | 98746 | tip and ring | USPAT; EPO; JPO | 2004/07/05 10:55 |
| - | 1 | (dtmf with decoder) and (((amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) and (tip and ring)) | USPAT; EPO; JPO | 2004/07/05 10:05 |
| - | 2 | (((amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) and (tip and ring)) and dtmf | USPAT; EPO; JPO | 2004/07/05 10:05 |
| - | 107 | ((amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) and (tip and ring) | USPAT; EPO; JPO | 2004/07/05 10:09 |
| - | 10943 | reshap\$3 | USPAT; EPO; JPO | 2004/07/05 11:13 |
| - | 2 | (tip and ring) and (((amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) and dtmf) | USPAT; EPO; JPO | 2004/07/05 10:09 |
| - | 62 | ((amplifier or driver) same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) and dtmf | USPAT; EPO; JPO | 2004/07/05 10:12 |
| - | 100161 | land (tip and ring) | USPAT; EPO; JPO | 2004/07/05 10:12 |
| - | 222 | (dtmf with decoder) and (tip and ring) | USPAT; EPO; JPO | 2004/07/05 10:12 |

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|---|--------|---|---------------------------------|------------------|
| - | 171 | ((dtmf with decoder) and (tip and ring)) and (amplifier or driver) | USPAT; EPO; JPO | 2004/07/05 10:13 |
| - | 8 | ((((dtmf with decoder) and (tip and ring)) and (amplifier or driver)) and ("adc" or analog adj digital adj converter) | USPAT; EPO; JPO | 2004/07/05 10:13 |
| - | 8 | (cpu or processor or digital adj logic) and (((dtmf with decoder) and (tip and ring)) and (amplifier or driver)) and ("adc" or analog adj digital adj converter)) | USPAT; EPO; JPO | 2004/07/05 10:13 |
| - | 477546 | amplifier | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:14 |
| - | 55378 | "adc" or analog adj digital adj converter | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:06 |
| - | 2766 | amplifier same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic) | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 10:25 |
| - | 7 | (dtmf adj2 decoder) and (amplifier same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 10:25 |
| - | 73497 | 379/\$.ccls. | USPAT; EPO; JPO | 2004/07/05 10:32 |
| - | 413 | (dtmf adj2 decoder) and 379/\$.ccls. | USPAT; EPO; JPO | 2004/07/05 10:32 |
| - | 133 | (tip and ring) and ((dtmf adj2 decoder) and 379/\$.ccls.) | USPAT; EPO; JPO | 2004/07/05 10:32 |
| - | 7 | ("adc" or analog adj digital adj converter) and ((tip and ring) and ((dtmf adj2 decoder) and 379/\$.ccls.)) | USPAT; EPO; JPO | 2004/07/05 10:36 |
| - | 2685 | dtmf.ab,ti. | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 10:42 |
| - | 3 | (amplifier same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) and dtmf.ab,ti. | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 10:42 |
| - | 7 | ("4085295" "4853958" "4868872" "5119322" "5214693" "5392348" "5408529").PN. | USPAT | 2004/07/05 10:47 |
| - | 700 | dtmf adj2 detector or dual adj tone adj detector | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 10:51 |
| - | 20 | (amplifier same ("adc" or analog adj digital adj converter) same (cpu or processor or digital adj logic)) and (dtmf adj2 detector or dual adj tone adj detector) | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 10:51 |
| - | 118302 | tip and ring | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 10:55 |
| - | 166 | (dtmf adj2 detector or dual adj tone adj detector) and (tip and ring) | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 10:58 |
| - | 93 | ((dtmf adj2 detector or dual adj tone adj detector) and (tip and ring)) and amplifier | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:02 |
| - | 4 | ((((dtmf adj2 detector or dual adj tone adj detector) and (tip and ring)) and amplifier) and ("adc" or analog adj digital adj converter) | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:02 |
| - | 23 | ("4041252" "4278847" "4333133" "4368361" "4388500" "4567331" "4787080" "4812851" "4918725" "4961218" "4987569" "5034978" "5132963" "5204854" "5249225" "5253291" "5280526" "5287406" "5333194" "5434916" "5504811" "5533119" "6343126").PN. | USPAT | 2004/07/05 11:03 |
| - | 68531 | "adc" or analog adj digital adj converter or codec | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:07 |
| - | 185 | (dtmf adj2 detector or dual adj tone adj detector) and ("adc" or analog adj digital adj converter or codec) | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:07 |

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|---|-------|--|---------------------------------|------------------|
| - | 92 | amplifier and (cpu or processor or digital adj logic) and ((dtmf adj2 detector or dual adj tone adj detector) and ("adc" or analog adj digital adj converter or codec)) | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:08 |
| - | 24 | (tip and ring) and (amplifier and (cpu or processor or digital adj logic) and ((dtmf adj2 detector or dual adj tone adj detector) and ("adc" or analog adj digital adj converter or codec))) | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:08 |
| - | 13740 | reshap\$3 | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:13 |
| - | 635 | amplifier same reshap\$3 | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:14 |
| - | 37674 | invert\$3 and non-invert\$3 | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:15 |
| - | 51 | (amplifier same reshap\$3) and (invert\$3 and non-invert\$3) | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:15 |
| - | 2 | ((amplifier same reshap\$3) and (invert\$3 and non-invert\$3)) and ("adc" or analog adj digital adj converter or codec) | USPAT; US-PGPUB; EPO; JPO | 2004/07/05 11:15 |

Patent Assignment Abstract of Title

Total Assignments: 1**Application #:** 10064641 **Filing Dt:** 08/01/2002**Patent #:** NONE**Issue Dt:****PCT #:** NONE**Publication #:** US20030235292**Pub Dt:** 12/25/2003**Inventor:** George Cheng**Title:** Dual tone multi-frequency decoder combines software and hardware and method of operating the same**Assignment: 1****Reel/Frame:** 012947/0758 **Received:**
08/02/2002**Recorded:**
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08/02/2002**Pages:**
3**Conveyance:** ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).**Assignor:** CHENG, GEORGE**Exec Dt:** 07/16/2002**Assignee:** SINO WEALTH ELECTRONIC (SHANGHAI) LTD.
NO.132, TIAN LIN ROAD
SHANGHAI, CHINA**Correspondent:** JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE
7 FLOOR-1, NO. 100
ROOSEVELT ROAD, SECTION 2
TAIPEI, TAIWAN 100

Search Results as of: 7/5/2004 3:10:56 P.M.

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